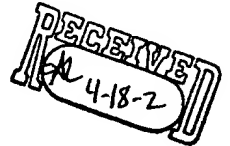#18

ATTORNEY'S DOCKET NO. E00295/70066 (EJR)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Steven M. Blumenau, et al.
Serial No: 09/107,618 – Confirmation No.: 8313
Filed: June 30, 1998
For: METHOD AND APPARATUS FOR PROVIDING DATA
                  MANAGEMENT FOR A STORAGE SYSTEM COUPLED TO A
                  NETWORK

Examiner: Dung C. Dinh
Art Unit: 2153

Official

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CERTIFICATE OF FACSIMILE TRANSMISSION 37 C.F.R. §1.8(a)

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Lori A. Biancuzzo

Box RCE
Commissioner for Patents
Washington, D. C. 20231

PRELIMINARY RESPONSE

Sir:

In response to the Advisory Action mailed January 18, 2002, (hereinafter the "Advisory Action"), Applicant respectfully requests reconsideration. Prior to examination on the merits, Applicant respectfully requests that the following remarks be considered.

In the Advisory Action, the Examiner maintains the rejection of the claims over the Chen reference (U.S. Patent No. 6,041,346 to Chen, et al.) under 35 U.S.C. §102(e). Applicant respectfully traverses the rejection.

In the Advisory Action, the Examiner alleges that the term "volume" does not distinguish over the folder of Chen. Applicant respectfully disagrees. First, the terms volume and Chen's folder are not functionally equivalent terms. A volume, as is known in the art, is not functionally equivalent to a folder. A purpose of Chen is to provide access to applications such as e-mail to an internet appliance (Col. 6, lines 8-9). In particular, Chen teaches accessing a folder named virtual mailbox to provide e-mail capability to the internet appliance (Col. 5, lines 3-4). Chen's

e-mail system, as other types of e-mail systems, does not access volumes; e-mail applications only access folders and files. A folder, as is known in the art, is a named collection of related files that can be retrieved, moved, and otherwise manipulated as one entity. A volume, on the other hand, is a logical grouping of disk storage devices that can be allocated to a device (e.g., a host) for storage space. One skilled in the art would not equate the terms volume and folder, as they are well-defined in the art as separate constructs. Therefore, Applicant believes that the term volume distinguishes over the folder of Chen, and that Chen does not disclose managing access to volumes of storage as claimed.

Second, the Examiner asserts that the user name of Chen serves to indicate the volume in the storage system as claimed. In particular, the Examiner alleges that "because each user name/password has associated folders that the user has access permission [sic]... since the user name is mapped to folders that he has access, the user name (although indirectly) served to indicate the volume in the storage system as claimed." Applicant respectfully disagrees. Chen does not either expressly or impliedly indicate a volume of a storage system as claimed. Chen teaches user access to folders; Chen does not teach or suggest access to a plurality of volumes of a storage system, and folders are not volumes as discussed above. Therefore, the Examiner has not presented a *prima facie* case of anticipation under 102(e) as Chen does not expressly or impliedly teach each of the limitations of the independent claims.

In particular, claim 1 recites a data management method for managing access to a plurality of volumes of a storage system by at least two devices coupled to the storage system through a network. The method comprises steps of: (1) receiving over the network at the storage system a request from one of the at least two devices for access to at least one of the plurality of volumes of the storage system, the request identifying the at least one of the plurality of volumes in the storage system, and (2) selectively servicing, at the storage system, the request responsive to configuration data indicating that the one of the at least two devices is authorized to access the at least one of the plurality of volumes.

Chen does not anticipate claim 1. Chen teaches device access to a folder of a mass storage device by logging in using a user name and password combination (Col. 5, lines 21-34). As discussed above, folders are not volumes as alleged by the Examiner. Therefore, Chen does not disclose managing access to volumes of storage as claimed. Further, Chen does not receive a request identifying at least one volume in a storage system. Chen obtains access to folders by

indicating a user name and password to a system; Chen does not receive a request identifying at least one volume in the storage system. Therefore, for at least these reasons, Chen does not anticipate claim 1. Claims 2-14 depend from claim 1 and are patentable for at least the same reasons.

Claim 15

Independent claim 15 recites a computer readable medium comprising a first data structure to manage accesses by a plurality of devices to volumes of data at a storage system over a communication network, the storage system managing access responsive to a request identifying one of the plurality of volumes of the storage system to be accessed. The first data structure comprising a plurality of records corresponding to the plurality of devices, each of the plurality records corresponding to one of the plurality of devices and including configuration information having at least one identifier that identifies which of the volumes of the storage system the one of the plurality of devices is authorized to access.

Chen does not disclose the computer readable medium as recited in claim 15. In particular, Chen does not disclose a first data structure that manages access by a plurality of devices to "volumes of data" at a storage system as recited in claim 15. As discussed above, Chen teaches access control of a device to folders located on the system, not volumes of data. Further, Chen does not disclose a system that is responsive to a request identifying a volume of the storage system to be accessed. Therefore, claim 15 is patentable over Chen. Claims 16-20 depend from claim 15 and are patentable for at least the same reasons.

Claim 21

Independent claim 21 recites a storage system comprising at least one storage device apportioned into a plurality of volumes, a configuration table to store centralized configuration data identifying which of a plurality of devices coupled to the storage system via a network are authorized to access each of the plurality of volumes, and a filter responsive to the configuration data, to selectively forward to the at least one storage device requests for access to the plurality of volumes received from the plurality of devices.

Chen does not disclose the storage system as recited in claim 21. Chen does not teach or suggest a configuration table to store configuration data identifying which of a plurality of
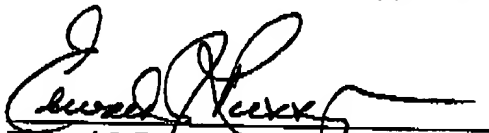
devices coupled to a storage system are authorized to access each of the plurality of volumes as recited in claim 21. As discussed above with reference to independent claim 1, Chen does not teach access to volumes; Chen teaches user access to folders. Therefore, the system of Chen does not disclose the storage system as recited in claim 21. Therefore, claim 21 is patentable over Chen. Claims 22-31 depend from claim 21 and are patentable for at least the same reasons.

An early and favorable action is earnestly solicited.

If there is a fee occasioned by this response, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,
Steven M. Blumenau, et al., Applicants

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